

Certified for US EPA-Tier 2 / Constant Speed

Standard Model [2000kWe/60Hz]

S16R-Y2PTAW2-1

SPECIFICATION SHEET

MITSUBISHI

DIESEL ENGINES

GENERAL ENGINE DATA

Type	4-Cycle, Water Cooled
Aspiration	Turbo-Charged, Inter Cooler (Fresh water to Cooler)
Cylinder Arrangement	60°V
No. of Cylinders	16
Bore mm(in.)	170 (6.69)
Stroke mm(in.)	180 (7.09)
Displacement liter(in ³)	65.37 (3989)
Compression Ratio	14.0:1
Dry Weight - Engine only - kg(lb)	6680 (14729)
Wet Weight - Engine only - kg(lb)	6830 (15060)

PERFORMANCE DATA

Steady State Speed Stability Band at any Constant Load	
Electric Governor - %	±0.25 or better
Maximum Overspeed Capacity - rpm	2100
Moment of inertia of Rotating Components - kgf·m ² (lbf·ft ²)	80.83 (1918.5) (Includes Std.Flywheel)
Cyclic Speed Variation with Flywheel at 1800rpm	1/215

ENGINE MOUNTING

Maximum Bending Moment at Rear Face of Flywheel Housing - kgf·m(lbf·ft)	450	(3255.6)
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AIR INLET SYSTEM

Maximum Intake Air Restriction (Includes piping)	
With Clean Filter Element - mm H ₂ O (in.H ₂ O)	400 (15.7)
With Dirty Filter Element - mm H ₂ O (in.H ₂ O)	635 (25.0)

EXHAUST SYSTEM

Maximum Allowable Back Pressure - mm H ₂ O (in.H ₂ O)	600	(23.6)
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LUBRICATION SYSTEM

Oil Pressure at Idle - kgf/cm ² (psi)	2 ~ 3	(29 ~ 43)
at Rate Speed - kgf/cm ² (psi)	5 ~ 6.5	(71 ~ 93)

Maximum Oil Temperature - °C(°F)	110	230
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Oil Capacity of Standard Pan	High - liter (U.S.gal)	200	(53)
	Low - liter (U.S.gal)	140	(37.0)

Total System Capacity (Includes Oil Filter) - liter (U.S.gal)	230	(60.8)
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Maximum Angle of Installation (Std. Pan)	Front Down	5°
(Engine Only)	Front Up	5°
	Side to Side	22.5°

COOLING SYSTEM

Coolant Capacity of Jacket (Engine only) - liter (U.S.gal)	140	(37.0)
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Coolant Capacity of Air cooler (Engine only) - liter (U.S.gal)	30	(7.9)
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Maximum External Friction Head at Engine Outlet - kgf/cm ² (psi)	0.35	(5.0)
(For Jacket and Air Cooler)	10	(32.8)

Maximum Static Head of Coolant above Crankshaft Center - m(ft)	71 ~ 85 (160 ~ 185)
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Standard Thermostat (modulating)Range of Jacket - °C(°F)	42 ~ 55 (108 ~ 131)
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Standard Thermostat (modulating)Range of Air Cooler - °C(°F)	98 (208)
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Minimum Coolant Expansion Space - % of System Capacity	10	(0.4)
(For Jacket and Air Cooler)	45	(113)

Maximum Coolant Temperature at Intercooler Inlet, PTAW type - °C(°F)	10	(0.4)
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Maximum Air Restriction on Discharge Side of Radiator and Fan - mm H ₂ O(in.H ₂ O)	10	(0.4)
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FUEL SYSTEM

Fuel Injector	_____	Mitsubishi PS8 Type × 2
Maximum Suction Head of Feed Pump - mm Hg (in. Hg)	_____	75 (3.0)
Maximum Static Head of Return Pipe - mm Hg (in.Hg)	_____	150 (5.9)

STARTING SYSTEM

Battery Charging Alternator - V- Ah	_____	24-30
Starting Motor Capacity - V - kW	_____	24-7.5 × 2
Maximum Allowable Resistance of Cranking Circuit - m	_____	1.5
Recommended Minimum Battery Capacity		
At 5°C (41°F) and above - Ah	_____	300
Below 5°C (41°F) through - 5°C (23°F)	_____	600

The specifications are subject to change without notice.

APPLICATION : GENERATOR

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ENGINE RATING

All data represent net performance with standard accessories such as air cleaner, inlet /exhaust manifolds, fuel oil system, L.O. pump, etc. under the condition of 100kPa(29.6inHg) barometric pressure, 77 °F(25°C) ambient temperature and 30% relative humidity.

ITEM	UNIT	STAND-BY POWER	PRIME POWER		
		60Hz	60Hz		
Engine Speed	rpm	1800	1800		
No. of Cylinders			16		
Bore	mm (in.)		170 (6.69)		
Stroke	mm (in.)		180 (7.09)		
Displacement	liter (in. ³)		65.37 (3989)		
Brake Horse power without Fan	HP (kW)	2923 (2180)	2657 (1982)		
Brake Mean Effective Pressure without Fan	kgf/cm ² (psi)	22.7 (323)	20.6 (293)		
Mean Piston Speed	m/s (ft/min)	10.8 (2126)	10.8 (2126)		
Maximum Regenerative Power Absorption Capacity without Fan	HP (kW)	258 (192)	258 (192)		
Intake Air flow	m ³ /min (CFM)	206 (7274)	185 (6532)		
Exhaust Gas Flow	m ³ /min (CFM)	544 (19209)	490 (17302)		
Coolant Flow	liter/min (U.S. GPM)	1850 (489)	1850 (489)		
Coolant Flow to Intercooler (PTAW only)	liter/min (U.S. GPM)	920 (243)	920 (243)		
Cooling Air Flow (Std. Fan)	m ³ /min (CFM)	-	-		
Allowable Fan Loss Horse Power	HP (kW)	67 (50)	67 (50)		
Radiated Heat to Ambient	kcal/hr (BTU/min)	154827 (10240)	139347 (9216)		
Heat Rejection to Coolant	kcal/hr (BTU/min)	670918 (44374)	603836 (39937)		
Heat Rejection to Air Cooler (PTAW Version)	kcal/hr (BTU/min)	670918 (44374)	603836 (39937)		
Heat Rejection to Exhaust	kcal/hr (BTU/min)	1789333 (118344)	1593690 (105405)		
Noise Level (1 m height & distance) (excludes, Intake,Exhaust & Fan)	dB(A)	113	110		

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